

REMARKS AND ARGUMENTS

The present application includes pending claims 1-26. Claims 1-9, and 12-26, have been rejected as being unpatentable over Neumann et al (Neumann), United States Patent Publication No. 2002/0141441 A1, in view of Schmidt, United States Patent Publication No. 2003/0067894 A1.

Claim 26 is objected to because it depends on an improper claim. The Applicants have amended Claim 26, as suggested by the Examiner, to address this improper dependency. Accordingly, Claim 26 now depends from Claim 23.

Claims 1-7, 12-19, 22-23 and 26 are rejected under 35 U.S.C. § 103(a) as, being unpatentable over Neumann et al, in view of Schmidt. Claims 1, 13, 19 and 23 are independent claims.

Claims 8-9, 20-21, and 24-25 are rejected under 35 U.S.C. § 103(a) as, being unpatentable over Neumann et al, in view of Schmidt, and in further view of well known prior art.

Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent forms including all of the limitations of the base claim and any intervening claims.

Independent Claims 1, 13, 19 and 23 have been amended. Dependent Claims 3, 5, 6, 8-11, 15, 17, 18, 20, 21 and 24-26.

New Claims 27 and 28 have been added.

The Applicants respectfully submits that the claims define patentable subject matter. Accordingly, the Applicants respectfully traverse these rejections and requests reconsideration of the claims in view of the following remarks.

All Reasons and Bases for Rejecting Claims Set Forth In Office Action

Initially, the Applicants note that a goal of patent examination is to provide a prompt and complete examination of a patent application.

It is essential that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, each claim should be reviewed for compliance with every statutory requirement for patentability in the *initial review* of the application, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, Office personnel *should* state *all* reasons and bases for rejecting claims in the *first* Office action. Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, Office personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

Manual of Patent Examining Procedure (MPEP) § 2106(II). As such, the Applicants assumes, based on the goals of patent examination noted above, that the present Office Action has set forth “all reasons and bases” for rejecting the claims.

Claim Rejections under 35 U.S.C. § 103

With regard to an obviousness rejection, in order for a *prima facie* case of obviousness to be established, the MPEP § 2142 states that the following three basic criteria must be met:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. **Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants disclosure.

Manual of Patent Examining Procedure MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (*emphasis added*). Additionally, if a *prima facie* case of obviousness is not established, the Applicants is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See Manual of Patent Examining Procedure MPEP at § 2142.

Further, MPEP § 2143.01 states that **“the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination,”** and that **“although a**

prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be *a suggestion or motivation in the reference to do so*’ (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that “**the level of ordinary skill in the art cannot be relied upon to provide the suggestion ...**,” citing *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999).

I. The Proposed Combination Of Neumann And Schmidt Does Not Render Claims 1-7, 12-19, 22-23, And 26 Unpatentable

Paragraph 2 Of The Detailed Action 35 U.S.C. § 103

The Applicants first turns to the rejection of claims 1-7, 12-19, 22-23, and 26, all of which have been rejected under 35 U.S.C § 103(a). The applicants note that the proposed combination of Neumann and Schmidt forms a basis for rejection of all of the pending claims.

A. The Proposed Combination of Neumann in View of Schmidt Does Not Teach or Suggest, At Least, “low-level stack operations of a first wireless protocol ... said low-level stack operations comprising physical layer functions and bearer-specific stack functions”

Neumann et al discloses a wireless telephone that includes a first and second baseband processors. The first baseband processor (GSM) functions as a system master, and the second processor (TDMA) functions as a system slave. The first baseband processor interfaces to the system controls, such as power supply, man machine interface (MMI), and the like. See Neumann at Abstract.

With regard to Claim 1, clause 1, the Office Action “Neumann does not specifically disclose baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol.” The Office Action therefore relies on Schmidt to satisfy this deficiency. The Office Action states, “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol (Figures 1 A-2, abstract, paragraphs 0004, 0010-

0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, "TCP/IP", "HTML", "HTTP", "processor 220", "short-range wireless transceiver"). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing the co-processor configured to execute low-level stack operations of a first wireless communications protocol, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations."

Schmidt discloses, "A multi-mode wireless device on a single substrate includes an analog portion and a digital portion integrated on the single substrate. The analog portion includes a cellular radio core; and a short-range wireless transceiver core. The digital portion includes a multi-processor core with a master processor coupled to a router which distributes data from the radio chip to a serial-parallel array of DSP processors, each of which is connected to multiple DSP coprocessors. This arrangement allows for decoding both complex protocols at low data rates (like GPRS), simple protocols at high data rates (like 802.11A) and complex protocols at high data rates (like WCDMA), using the same hardware." See Schmidt at Abstract.

The Applicants respectfully asserts that Schmidt does not disclose at least the limitation of "a first baseband co-processor configured to **execute low-level stack operations** of a first wireless communications protocol employed within a first wireless communications network." *Emphasis added*. Instead, Schmidt discloses "a multi-processor core ... arrangement that allows for decoding both complex protocols at low data rates (like GPRS), simple protocols at high data rates (like 802.11A) and complex protocols at high data rates (like WCDMA), using the same hardware." See Schmidt at Abstract, and paragraph [0010]. Schmidt further discloses "The reconfigurable processor core **150** controls the cellular radio core **110** and the short-range wireless transceiver core **130** to provide a seamless dual-mode network integrated circuit that operates with a plurality of distinct and unrelated communications standards and protocols such as Global System for Mobile Communications (GSM), General Packet Radio Service (GPRS), Enhance Data Rates for GSM Evolution (Edge) and

Bluetooth™. The cell phone core **110** provides wide area network (WAN) access, while the short-range wireless transceiver core **130** supports local area network (LAN) access. The reconfigurable processor core **150** has embedded read-only-memory (ROM) containing software such as IEEE802 11, GSM, GPRS, Edge, and/or Bluetooth™ protocol software, among others.” See Schmidt at paragraph [0025]. None of these operations amounts to “low-level stack operations of a wireless communications protocol” as disclosed in the Applicant’s invention.

Furthermore, the Office Action states, “Schmidt discloses baseband co-processor configured to execute low-level stack operations of a first wireless communications protocol,” and cites “Figures 1 A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, “TCP/IP”, “HTML”, “HTTP”, “processor 220”, “short-range wireless transceiver” for support. The Applicants respectfully disagrees that “Schmidt discloses baseband co-processor configured to execute low-level stack operations of a first wireless communications protocol.” In fact, the cited protocols, namely, TCP/IP, HTML, and HTTP are upper layer protocols and not “physical layer or bearer-specific functions” as disclosed and claimed in the Applicant’s invention. It is well known in the art that Physical Layer function are defined by OSI Layer 1, which is also known as the Physical Layer or PHY layer. Accordingly, these protocols would not qualify as “low-level stack operations.”

Notwithstanding, the Applicant’s have amended claim 1 to recite the limitation of **“one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching.”** Neither Neumann nor Schmidt shows this limitation. Additionally, the Applicants respectfully assert that it would not have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann and/or Schmidt, and consequently provide **“one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said**

switching.”

Accordingly, at least for the reasons cited above, the Applicants respectfully assert that Claim 1 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 1.

With reference to Claim 2, the Office Action states, “the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose the set of protocol stack operations comprises a complete set of protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “first and second baseband processors”, “GSM”, “TDMA”).”

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitation of **“one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching”** as recited in amended Claim 1. Claim 2 depends from Claim 1 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the device of claim 1, and further disclose the set of protocol stack operations comprises a complete set of protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “first and second baseband processors”, “GSM”, “TDMA”).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 2 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 2.

With reference to Claim 3, the Office Action states, “the combination of Neumann/Schmidt disclose the device of claim 1. Neumann does not disclose a second baseband processor in communication with said host baseband processor via said data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications

protocol. Schmidt discloses second baseband processor in communication with a host baseband processor via a data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications protocol (Figures 1A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 1. Claim 3 depends from Claim 1 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** disclose "second baseband processor in communication with a host baseband processor via a data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications protocol (Figures 1A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

Since Neumann and/or Schmidt does not teach the limitations of **"one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 1, the Applicants respectfully assert that it would **not** "have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 3 defines patentable subject matter, and is therefore in condition for

allowance. The Applicants respectfully request allowance of Claim 3.

With reference to Claim 4, the Office Action states, “the combination of Neumann/Schmidt disclose the device of claim 3, and further disclose the set of protocol stack operations comprises higher-level protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor”).”

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of “**one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching**” as recited in Claim 1. Claim 4 depends from Claim 3, the latter of which depends from Claim 1. Accordingly, Claim 4 comprises all the limitations of amended Claim 1 and Claim 3. Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the device of claim 3, and further disclose the set of protocol stack operations comprises higher-level protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor”).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 4 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 4.

With reference to Claim 5, the Office Action states “the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose the low-level stack operations include physical layer functions and bearer specific stack functions peculiar to said first wireless communications protocol (Schmidt, figures 1A-2, abstract, paragraphs 4, 10-11, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51).”

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of “**one or both of said first baseband co-processor**

and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching” as recited in amended Claim 1. Claim 5 depends directly from amended Claim 1. Accordingly, the combination of Neumann and Schmidt **cannot** “the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose the low-level stack operations include physical layer functions and bearer specific stack functions peculiar to said first wireless communications protocol (Schmidt, figures 1A-2, abstract, paragraphs 4, 10-11, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 5 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 5.

With reference to Claim 6, the Office Action states, “the combination of Neumann/Schmidt disclose the device of claim 5, and further disclose higher-level stack functions include stack functions common to said first and second wireless communication protocols (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025).”

In response, the Applicants respectfully assert that Schmidt does not teach the limitations of **“one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching”** as recited in amended Claim 1. Claim 6 depends from Claim 5, the latter of which depends from Claim 1 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the device of claim 5, and further disclose higher-level stack functions include stack functions common to said first and second wireless communication protocols (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 6 defines patentable subject matter, and is therefore in condition for

allowance. The Applicants respectfully request allowance of Claim 6.

With reference to Claim 7, the Office Action states, "the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose host baseband processor is further configured to execute application-layer functions (figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025)."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 1. Claim 7 depends from Claim 1 and comprises all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** "disclose the device of claim 1, and further disclose host baseband processor is further configured to execute application-layer functions (figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025)."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 7 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 7.

With reference to Claim 12, the Office Action states, "the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose first wireless communications protocol comprises WCDMA and said second wireless communications protocol comprises GSM (Schmidt, abstract, and paragraphs 4, and 25)."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"one or both of said first baseband co-processor and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 1. Claim 12 depends from Claim 1 and comprises all the limitations thereof.

Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the device of claim 1, and further disclose first wireless communications protocol comprises WCDMA and said second wireless communications protocol comprises GSM (Schmidt, abstract, and paragraphs 4, and 25).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 12 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 12.

With regard to Claim 13, clause 1, the Office Action “Neumann does not specifically disclose executing **low-level stack operations** of said first wireless communications protocol within a first baseband co-processor.” The Office Action therefore relies on Schmidt to satisfy this deficiency. The Office Action states, “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol (Figures 1A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, “TCP/IP”, “HTML”, “HTTP”, “processor 220”, “short-range wireless transceiver.”). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing executing **low-level stack operations** of said first wireless communications protocol within a first baseband co-processor, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations.”

The Applicants respectfully asserts that Schmidt does not disclose at least the limitation of “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol.” *Emphasis added.* Instead, Schmidt discloses “a multi-processor core ... arrangement that allows for decoding both complex protocols at low data rates (like GPRS), simple protocols at high data rates (like 802.11A) and complex protocols at high data rates (like WCDMA), using the same hardware.” See Schmidt at Abstract, and paragraph [0010]. Schmidt further discloses “The reconfigurable processor core **150** controls the cellular radio core

110 and the short-range wireless transceiver core **130** to provide a seamless dual-mode network integrated circuit that operates with a plurality of distinct and unrelated communications standards and protocols such as Global System for Mobile Communications (GSM), General Packet Radio Service (GPRS), Enhance Data Rates for GSM Evolution (Edge) and Bluetooth™. The cell phone core **110** provides wide area network (WAN) access, while the short-range wireless transceiver core **130** supports local area network (LAN) access. The reconfigurable processor core **150** has embedded read-only-memory (ROM) containing software such as IEEE802 11, GSM, GPRS, Edge, and/or Bluetooth™ protocol software, among others.” See Schmidt at paragraph [0025]. None of these operations amounts to “low-level stack operations of a wireless communications protocol” as disclosed in the Applicant’s invention.

Furthermore, the Office Action states, “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol,” and cites “Figures 1 A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, “TCP/IP”, “HTML”, “HTTP”, “processor 220”, “short-range wireless transceiver” for support. The Applicants respectfully disagrees that “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol.” In fact, the cited protocols, namely, TCP/IP, HTML, and HTTP are upper layer protocols and not “physical layer or bearer-specific functions” as disclosed and claimed in the Applicant’s invention. It is well known in the art that Physical Layer function are defined by OSI Layer 1, which is also known as the Physical Layer or PHY layer. Accordingly, these protocols would not qualify as “low-level stack operations.”

Notwithstanding, the Applicant’s have amended claim 1 to recite the limitation of **“switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching.”** Neither Neumann and/or Schmidt shows this limitation. Additionally, the Applicants respectfully assert that it would not have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann and/or Schmidt, and consequently provide “one or both of said first baseband co-processor

and said host baseband processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching.”

Accordingly, at least for the reasons cited above, the Applicants respectfully assert that amended Claim 13 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 13.

With reference to Claim 14, the Office Action states, “disclose the method of claim 13, and further disclose executing said set of protocol stack operations comprise executing a complete set of protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “first and second baseband processors”, “GSM”, “TDMA”).”

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **“switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching”** as recited in Claim 13. Claim 14 depends from Claim 13 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the method of claim 13, and further disclose executing said set of protocol stack operations comprise executing a complete set of protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, “first and second baseband processors”, “GSM”, “TDMA”).”

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that amended Claim 14 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 14.

With reference to Claim 3, the Office Action states, “the combination of Neumann/Schmidt discloses the method of claim 13. Neumann does not disclose a second baseband processor in communication with said host baseband processor via said data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications protocol.

Schmidt discloses second baseband processor in communication with a host baseband processor via a data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications protocol (Figures 1A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in Claim 13. Claim 15 depends from Claim 13 and comprises all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** disclose "second baseband processor in communication with a host baseband processor via a data communication channel, said second baseband processor being configured to execute low-level stack operations of said second wireless communications protocol (Figures 1A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

Since Schmidt does not teach the limitations of **"switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 13, the Applicants respectfully assert that it would **not** "have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 15 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 15.

With reference to Claim 16, the Office Action states, "the combination of Neumann/Schmidt disclose the method of claim 15, and further disclose executing said set of protocol stack operations comprises executing higher-level protocol stack

operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, "logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor")."

In response, the Applicants respectfully assert that Schmidt does not teach the limitations of **"switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in Claim 13. Claim 16 depends from Claim 15, the latter of which depends from Claim 13. Accordingly, Claim 16 comprises all the limitations of Claim 13 and Claim 13. Accordingly, the combination of Neumann and Schmidt **cannot** "disclose executing said set of protocol stack operations comprises executing higher-level protocol stack operations of said second wireless communications protocol (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, "logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor")."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 16 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 16.

With reference to Claim 17, the Office Action states "the combination of Neumann/Schmidt disclose the method of claim 13, and further disclose executing said low-level stack operations comprises executing physical layer functions and bearer-specific stack functions peculiar to said first wireless communications protocol (Schmidt, figures 1A-2, abstract, paragraphs 4, 10-11, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 13. Claim 17 depends from Claim 13 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** "disclose the method of claim 13, and

further disclose executing said low-level stack operations comprises executing physical layer functions and bearer-specific stack functions peculiar to said first wireless communications protocol (Schmidt, figures 1A-2, abstract, paragraphs 4, 10-11, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51)."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 17 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 17.

With reference to Claim 18, the Office Action states, "the combination of Neumann/Schmidt disclose the method of claim 17, and further disclose executing higher-level stack functions includes executing stack functions common to said first and second wireless communication protocols (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025)."

In response, the Applicants respectfully assert that Schmidt does not teach the limitations of **"switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in amended Claim 13. Claim 18 depends from claim 17, the latter of which depends from Claim 13 and contains all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** "disclose the method of claim 17, and further disclose executing higher-level stack functions includes executing stack functions common to said first and second wireless communication protocols (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025)."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 18 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 18.

With reference to Claim 19, the Office Action "Neumann does not specifically disclose **low-level stack operations**. The Office Action therefore relies on Schmidt to satisfy this deficiency. The Office Action states, "Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol (Figures 1 A-2, abstract, paragraphs 0004, 0010-0011, 23-25,

27-29, 31, 35, 40, 44-46, 49, and 51, "TCP/IP", "HTML", "HTTP", "processor 220", "short-range wireless transceiver"). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing a first bearer-specific processor configured to execute **low-level stack operations** of a first wireless communications protocol employed within a first wireless, communications network; a second bearer-specific processor configured to execute **low-level stack** operations of a second, wireless communications protocol employed within a second wireless communications network, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations."

The Applicant respectfully asserts that Schmidt **does not** disclose at least the limitation of "baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol." *Emphasis added*. Instead, Schmidt discloses "a multi-processor core ... arrangement that allows for decoding both complex protocols at low data rates (like GPRS), simple protocols at high data rates (like 802.11A) and complex protocols at high data rates (like WCDMA), using the same hardware." See Schmidt at Abstract, and paragraph [0010]. Schmidt further discloses "The reconfigurable processor core **150** controls the cellular radio core **110** and the short-range wireless transceiver core **130** to provide a seamless dual-mode network integrated circuit that operates with a plurality of distinct and unrelated communications standards and protocols such as Global System for Mobile Communications (GSM), General Packet Radio Service (GPRS), Enhance Data Rates for GSM Evolution (Edge) and Bluetooth™. The cell phone core **110** provides wide area network (WAN) access, while the short-range wireless transceiver core **130** supports local area network (LAN) access. The reconfigurable processor core **150** has embedded read-only-memory (ROM) containing software such as IEEE802.11, GSM, GPRS, Edge, and/or Bluetooth™ protocol software, among others." See Schmidt at paragraph [0025]. None of these operations amounts to "low-level stack operations of a wireless communications protocol" as disclosed in Applicant's invention.

Furthermore, the Office Action states, "Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol," and cites "Figures 1 A-2, abstract, paragraphs 0004, 0010-0011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, "TCP/IP", "HTML", "HTTP", "processor 220", "short-range wireless transceiver" for support. The Applicants respectfully disagrees that "Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol." In fact, the cited protocols, namely, TCP/IP, HTML, and HTTP are upper layer protocols and not "physical layer or bearer-specific functions" as disclosed and claimed in the Applicant's invention. It is well known in the art that Physical Layer function are defined by OSI Layer 1, which is also known as the Physical Layer or PHY layer. Accordingly, these protocols would not qualify as "low-level stack operations."

Notwithstanding, the Applicant's have amended claim 19 to recite the limitation of **"one or any combination of said first bearer-specific processor, said second bearer-specific processor and said primary processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching."** Neither Neumann and/or Schmidt show this limitation. Additionally, the Applicants respectfully assert that it would not have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann and/or Schmidt, and consequently provide **"one or any combination of said first bearer-specific processor, said second bearer-specific processor and said primary processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching."**

Accordingly, at least for the reasons cited above, the Applicants respectfully assert that amended Claim 19 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 19.

With reference to Claim 23, the Office Action states, "Neumann discloses a multi-mode wireless communication device (abstract, and paragraph 0004, "dual

mode", telephone have been developed, in which the telephone is useable in two networks), comprising a first integrated circuit configured to execute operations of a first wireless communications protocol employed within a first wireless communications network (figures 2-8B, paragraphs 0019-0021, "first and second baseband processors", "GSM","TDMA"); a second integrated circuit configured to execute operations of a second wireless communications protocol employed within a second wireless communications network (figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, "first and second baseband processors", "GSM","TDMA"); a integrated circuit configured to execute higher-level stack operations of said first wireless communications protocol and of said second wireless communications protocol (figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, "first and second baseband processors", "GSM","TDMA"); a first data communications channel between integrated circuits (figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025, "logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor"); a second data communications channel between said **second** integrated circuit and said **third** integrated circuit."

The Office Action further states "Neumann does not specifically disclose a circuit configured to execute **low-level stack** operations, a **third** integrated circuit, and a first data communications channel between said first integrated circuit and said **third** integrated circuit; and a second data communications channel between said **second** integrated circuit and said **third** integrated circuit." In order to satisfy this deficiency, the Office Action looks to Schmidt. The Office Action states, "Schmidt discloses a circuit configured to execute **low-level stack** operations, a **third** integrated circuit, and a first data communications channel between said first integrated circuit. Schmidt discloses a circuit configured to execute **low-level stack** operations, a **third** integrated circuit, and a first data communications channel between said first integrated circuit and the **third** integrated circuit; and a second data communications channel between the **second** integrated circuit and the third integrated circuit (Figures 1A-2, abstract, paragraphs 0004, 00100011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, "TCP/IP", "HTML", "HTTP", "processor 220", "short-range wireless transceiver", "DSP Processor

310", "320", "330"). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing a circuit configured to execute **low-level stack** operations of a first wireless communications protocol employed within a first wireless communications network; a second integrated circuit configured to execute **low-level stack** operations of a second wireless communications protocol employed within a second wireless communications network; a **third** integrated circuit configured to execute higher-level stack operations of said first wireless communications protocol and of said second wireless communications protocol; a first data communications channel between said first integrated circuit and said **third** integrated circuit; and a second data communications channel between said **second** integrated circuit and said **third** integrated circuit, motivation being for the purpose of distributing the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations."

The Applicants respectfully asserts that Schmidt **does not** disclose at least the limitation of "first integrated circuit configured to execute **low-level stack operations of a first** wireless communications protocol." *Emphasis added.* Instead, Schmidt discloses "a multi-processor core ... arrangement that allows for decoding both complex protocols at low data rates (like GPRS), simple protocols at high data rates (like 802.11A) and complex protocols at high data rates (like WCDMA), using the same hardware." See Schmidt at Abstract, and paragraph [0010]. Schmidt further discloses "The reconfigurable processor core **150** controls the cellular radio core **110** and the short-range wireless transceiver core **130** to provide a seamless dual-mode network integrated circuit that operates with a plurality of distinct and unrelated communications standards and protocols such as Global System for Mobile Communications (GSM), General Packet Radio Service (GPRS), Enhance Data Rates for GSM Evolution (Edge) and Bluetooth™. The cell phone core **110** provides wide area network (WAN) access, while the short-range wireless transceiver core **130** supports local area network (LAN) access. The reconfigurable processor core **150** has embedded read-only-memory (ROM) containing software such as IEEE802 11, GSM, GPRS, Edge, and/or

Bluetooth™ protocol software, among others.” See Schmidt at paragraph [0025]. None of these operations amounts to “low-level stack operations of a wireless communications protocol” as disclosed in the Applicant’s invention.

Furthermore, the Office Action states, “integrated circuit configured to execute **low-level stack operations of a first** wireless communications protocol,” and cites (Figures 1A-2, abstract, paragraphs 0004, 00100011, 23-25, 27-29, 31, 35, 40, 44-46, 49, and 51, “TCP/IP”, “HTML”, “HTTP”, “processor 220”, “short-range wireless transceiver”, “DSP Processor 310”, “320”, “330”) for support. The Applicants respectfully disagrees that “Schmidt discloses baseband co-processor configured to execute **low-level stack operations of a first** wireless communications protocol.” In fact, the cited protocols, namely, TCP/IP, HTML, and HTTP are upper layer protocols and not “physical layer or bearer-specific functions” as disclosed and claimed in Applicant’s invention. It is well known in the art that Physical Layer function are defined by OSI Layer 1, which is also known as the Physical Layer or PHY layer. Accordingly, these protocols would not qualify as “low-level stack operations.”

Notwithstanding, the Applicant’s have amended claim 23 to recite the limitation of **“one or any combination of said first integrated circuit, said second integrated circuit, and said third integrated circuit enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching.”** Neither Neumann nor Schmidt shows this limitation. Additionally, the Applicants respectfully assert that it would not have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann and/or Schmidt, and consequently provide **“one or any combination of said first integrated circuit, said second integrated circuit, and said third integrated circuit enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching.”**

Since Neumann and/or Schmidt does not teach the limitation of **“one or any combination of said first integrated circuit, said second integrated circuit, and**

said third integrated circuit enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching” as recited in amended Claim 23, the Applicants respectfully assert that it would not “have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing a first bearer-specific processor configured to execute low-level stack operations of a first wireless communications protocol employed within a first wireless, communications network; a second bearer-specific processor configured to execute low-level stack operations of a second, wireless communications protocol employed within a second wireless communications network, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations.”

Accordingly, at least for the reasons cited above, the Applicants respectfully assert that amended Claim 23 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 23.

With reference to Claim 22, the Office Action states “the combination of Neumann/Schmidt disclose device of claims 19, and further disclose primary processor and the is further configured to execute application layer functions (Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025).”

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **“one or any combination of said first bearer-specific processor, said second bearer-specific processor and said primary processor enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching”** as recited in Claim 19. Claim 22 depends from Claim 19 and comprises all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** “disclose the device of claims 19, and further disclose primary processor and the is further configured to execute application layer functions

(Neumann, figures 2-8B, paragraphs 0019-0021, 0038, 0034, 0030, 0025)."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 22 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 22.

With reference to Claim 26, the Office Action states "the combination of Neumann/Schmidt disclose device of claim 23, and further disclose third integrated circuit is further configured to execute application-layer."

In response, the Applicants respectfully assert that Neumann and/or Schmidt does not teach the limitations of **"one or any combination of said first integrated circuit, said second integrated circuit, and said third integrated circuit enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching"** as recited in independent Claim 23. Claim 26 depends from amended Claim 23 and comprises all the limitations thereof. Accordingly, the combination of Neumann and Schmidt **cannot** "disclose device of amended claim 23, and further disclose third integrated circuit is further configured to execute application-layer."

Accordingly, at least for the reasons set forth herein, the Applicants respectfully assert that Claim 26 defines patentable subject matter, and is therefore in condition for allowance. The Applicants respectfully request allowance of Claim 26.

II. The Proposed Combination Of Neumann, And Schmidt, In View Of Well Known Prior Art (MPEP § 2144.03), Does Not Render Claims 8-9, 20-21 And 24-25 Unpatentable

Paragraph 4 Of The Detailed Action 35 U.S.C. § 103

Traversal Of Official Notice

(Paragraph 4 Page 12 of the Office Action)

Referring to claim 8, the Office Action states "the combination of Neumann/Schmidt disclose the device of claim 1, and further disclose the first baseband co-processor includes a first physical layer module for implementing physical layer functions (Schmidt, 1A-2, abstract, paragraphs 4, 10-11, 23-25, 2729, 31, 35, 40, 44-46, 49, and 51, note that a first layer module is an inherent part of lower level stacks). The combination of Neumann/Schmidt does not specifically disclose a first bearer specific module for implementing bearer-specific stack functions peculiar to said first wireless communications protocol a first buffer in communication with said first physical layer module and said first bearer-specific module."

"The examiner takes official notice of the fact that bearer-specific modules and algorithms, and buffers in communication with the physical layers module of communication protocols are well known in the art. It would have been obvious to one of the ordinary skills in the art at the time of the invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art and consequently providing a first bearer-specific module for implementing bearer-specific stack functions to be peculiar to the first wireless communications **protocol** a first buffer in communication with said first physical layer module and said first bearer-specific module, for the purpose of having a task specific module, and increasing efficiency."

The Applicants respectfully disputes the Examiner's assertions that "It would have been obvious to one of the ordinary skills in the art at the time of the invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art and consequently providing a first bearer-specific module for implementing bearer-specific stack functions to be peculiar to the first wireless communications **protocol** a first buffer

in communication with said first physical layer module and said first bearer-specific module, for the purpose of having a task specific module, and increasing efficiency.”

Referring to claim 9, the Office Action states “the combination of Neumann/Schmidt disclose the device of claim 8. The combination of Neumann/Schmidt does not disclose first baseband co-processor includes a second buffer in communication with first bearer-specific module and said data communication channel. The examiner takes official notice of the fact that bearer-specific modules and algorithms, and second buffers in communication with the physical layers module of communication protocols are well known in the art. It would have been obvious to one of the ordinary skills in the art at the time of the invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art and consequently providing the first baseband co-processor to include a second buffer in communication with first bearer-specific module and data communication channel, for the purpose of having a task specific module, and increasing efficiency.”

The Applicants respectfully disputes the Examiner’s assertions that “It would have been obvious to one of the ordinary skills in the art at the time of the invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art and consequently providing the first baseband co-processor to include a second buffer in communication with first bearer-specific module and data communication channel, for the purpose of having a task specific module, and increasing efficiency.”

Referring to claims 20 and 24, the Office Action states “the combination of Neumann/Schmidt disclose the device of claims 19, and 23. The combination of Neumann/Schmidt does not disclose low-level stack operations of said first wireless communications protocol include physical layer functions and bearer-specific stack functions peculiar to said first wireless communications protocol. The examiner takes official notice of the fact that low-level stack operations and bearer-specific stack operations are well known in the art. It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and

consequently providing efficient executions.”

The Applicants respectfully disputes the Examiner's assertions that “It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and consequently providing efficient executions.”

Referring to claims 21 and 25, the Office Action states “the combination of Neumann/Schmidt disclose the device of claim 20 and 24. The combination of Neumann/Schmidt does not disclose low-level stack operations of the second wireless communications protocol include physical layer functions and bearer-specific stack functions peculiar to the second wireless communications protocol. The examiner takes official notice of the fact that low-level stack operations and bearer specific stack operations are well known in the art. It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and consequently providing efficient executions.”

The Applicants respectfully disputes the Examiner's assertions that “It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and consequently providing efficient executions.”

Since the Office Action is asserting Official Notice that the subject matter of the above listed statements is common knowledge, the Applicants respectfully traverses the perceived and explicit assertions as further set forth below. Alternatively, if the Office Action's assertions are based on the personal knowledge of the Examiner, then under MPEP § 2144.03(C) and 37 C.F.R. § 1.104(d)(2), the assertions must be supported by an affidavit from the Examiner.

According to MPEP § 2144.03(A), Official Notice, without supporting references,

should **only** be asserted when the subjects asserted to be common knowledge are “capable of instant and unquestionable demonstration as being well-known.” That is, the subjects asserted must be of “notorious character” under MPEP § 2144.03(A).

However, the Applicants respectfully submits that the subject matter of the perceived and explicit assertions of Official Notice, as stated in paragraph 4, pages 12 through 14 of the Office Action, are not well-known in the art as evidenced by the searched and cited prior art. The Applicants respectfully submits that the Examiner has performed “a thorough search of the prior art,” as part of the Examiner’s obligation in examining the present application under MPEP § 904.02.

Additionally, the Applicants respectfully submits that the Examiner’s searched and cited references found during the Examiner’s thorough and detailed search of the prior art are indicative of the knowledge commonly held in the art. However, in the Examiner’s thorough and detailed search of the relevant prior art, none of the prior art taught or suggested the subject matter of the perceived and explicit assertions of Official Notice with regards to claims 8-9, 20-21, and 24-25, as stated in pages 12, 13 and 14 of the Office Action. That is, the Examiner’s thorough and detailed search of the prior art has failed to yield any mention of the limitations in claims 8-9, 20-21, and 24-25, which the Office Action concedes are not explicitly found in Neumann and Schmidt, and which the Examiner asserts are widely known in the art. The Applicants respectfully submits that if the subject matter of these assertions of Official Notice had been of “notorious character” and “capable of instant and unquestionable demonstration as being well-known” under MPEP § 2144.03(A), then the subject matter would have appeared to the Examiner during the Examiner’s thorough and detailed search of the prior art.

If the Examiner had found any teaching of relevant subject matter, the Examiner would have been obligated to list the references teaching the relevant subject matter and make a rejection. Consequently, the Applicants respectfully submits that the prior art does not teach the subject matter of the perceived assertions of Official Notice stated in pages 8-9, 20-21, and 24-25 of the Office Action and respectfully traverses the

perceived assertions of Official Notice.

The Applicants specifically challenges the perceived and explicit assertions of Official Notice with regard to claims 8-9, 20-21, and 24-25. As stated above, the Applicants respectfully traverses the perceived and explicit assertions of Official Notice and submits that the subject matter of claims 8-9, 20-21, and 24-25 is not of such "notorious character" that it is "capable of instant and unquestionable demonstration as being well-known." Under MPEP § 2144.03, the Examiner is now obligated to provide a reference(s) in support of the perceived assertions of Official Notice if the Examiner intends to maintain any rejection based thereon. Additionally, the Applicants respectfully requests the Examiner reconsider the assertion of Official Notice and provide any basis for the assertions of Official Notice.

With reference to Claims 1, 3, 9, 13, 15, 19, 20, 23, 21, 24, and 25, the Office Action states various purposes or motivation for combining or modifying to produce the claimed invention. With reference to Claim 1, the Office Action states "It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing the co-processor configured to execute low-level stack operations of a first wireless communications protocol, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations." With reference to Claim 3, the Office Action states "It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations." With reference to Claim 13, "It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing executing **low-level stack operations** of said first wireless communications protocol within a first baseband co-processor, motivation being to distribute the stack operations of the protocols between

processors, and consequently providing efficiency and faster execution of operations.” With reference to Claim 15, the Office Action states “It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Neumann, by incorporating the teachings of Schmidt into that of Neumann, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations.” With reference to Claim 19, the Office Action states “It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing a first bearer-specific processor configured to execute **low-level stack operations** of a first wireless communications protocol employed within a first wireless, communications network; a second bearer-specific processor configured to execute **low-level stack** operations of a second, wireless communications protocol employed within a second wireless communications network, motivation being to distribute the stack operations of the protocols between processors, and consequently providing efficiency and faster execution of operations.” With reference to Claim 23, the Office Action states “It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the device of Neumann, by incorporating the teachings of Schmidt into that of Neumann, and consequently providing a circuit configured to execute **low-level stack** operations of a first wireless communications protocol employed within a first wireless communications network; a second integrated circuit configured to execute **low-level stack** operations of a second wireless communications protocol employed within a second wireless communications network; a **third** integrated circuit configured to execute higher-level stack operations of said first wireless communications protocol and of said second wireless communications protocol; a first data communications channel between said first integrated circuit and said **third** integrated circuit; and a second data communications channel between said **second** integrated circuit and said **third** integrated circuit, motivation being for the purpose of distributing the stack operations of the protocols between processors, and consequently providing efficiency

and faster execution of operations.” With reference to Claims 20 and 24, “the Office Action states “It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and consequently providing efficient executions.” With reference to Claims 21 and 25, the Office Action states “It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the device of Neumann/Schmidt by incorporating the teachings of prior art for the purpose of efficient distribution of stack operations of the protocols between processors, and consequently providing efficient executions.”

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the Applicants are under no obligation to submit evidence of nonobviousness. See Manual of Patent Examining Procedure MPEP at § 2142. Further, MPEP § 2143.01 states that **“the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination,”** and that **“although a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference to do so*’”** (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)).

The Applicants respectfully maintain that the references are not properly combinable. Even if the cited reference were combinable, which the Applicants contend they are not, the prior art does not “suggests the desirability of the combination.” Furthermore, the references do not contain a “suggestion or motivation” to combine. Moreover, the MPEP § 2143.01 also states that **“the level of ordinary skill in the art cannot be relied upon to provide the suggestion ...”** citing *AI-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). For at least these reasons, the Applicants believe that a *prima facie* case of obviousness has not be established with regard to Claims 1, 3, 9, 13, 15, 19, 20, 23, 21, 24, and 25.

Allowable Subject Matter
(Paragraph 5 of the Office Action)

Applicant acknowledges with appreciation the Examiner's statement regarding the allowability of dependent Claims 10 and 11. In particular, dependent Claims 10 and 11 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Dependent Claim 10 depends from dependent Claim 9, the latter of which depends from dependent claim 8, which depends from independent claim 1. Dependent Claim 11 depends from dependent Claim 10, the latter of which depends for dependent Claim 9, which depends from dependent claim 8, which depends from independent claim 1.

Accordingly, new claims 27 and 28 have been added. Claim 27 is an independent claim that contains all the limitations of Claims 1, 8, 9, and 10 as recommended by the Office Action. Claim 28 is a dependent claim, which depends from Claim 27 and contains all the limitations of Claims 1, 8, 9, 10 and 11 as recommended by the Office Action. The Applicant respectfully requests allowance of new claims 27 and 28.

In light of the above arguments, the Applicants submit that independent Claims 1, 13, 19, and 23 are in condition for allowance. Accordingly, the Applicants believe that, in addition to new claims 27 and 28, the dependent Claims 2-12, 14-18, 20-22 and 24-26 are also in condition for allowance.

CONCLUSION

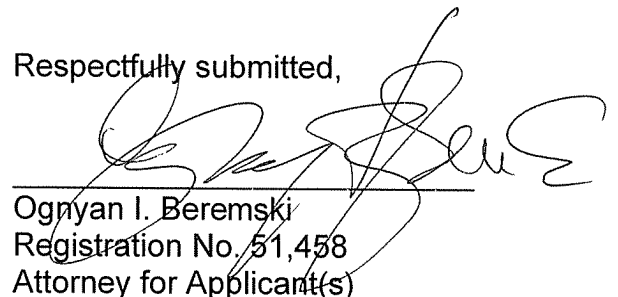
Based on the foregoing, the Applicants believe that all claims 1-28 are in condition for allowance. If the Examiner disagrees, the Applicants respectfully request a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8191.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Date: June 27, 2006

Respectfully submitted,



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